

AMENDMENTS TO THE CLAIMS:

If entered, this listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) An electrostatic discharge protection device consisting of:

a p-well region in a semiconductor substrate;

a ground pad connected to a first p+ region in said

5 p-well region;

an n+ region in said p-well region wherein said n+ region is connected to a first voltage supply;

an n-well region in said p-well region wherein said n+ region is spaced from said n-well region a distance such  
10 that a depletion region extends therebetween during normal operation; and

a second p+ region in said n-well region wherein said second p+ region is connected to a second voltage supply of greater value than said first voltage supply during said

15 normal operation wherein current is conducted through said n+ region to said second p+ region during an electrostatic discharge event.

2. (Original) The device according to Claim 1 wherein said p-well region comprises a dopant concentration of between about  $1 \times 10^{15}$  atoms/cm<sup>3</sup> and  $1 \times 10^{16}$  atoms/cm<sup>3</sup>.

3. (Original) The device according to Claim 1 wherein said n-well region comprises a dopant concentration of between about  $5 \times 10^{15}$  atoms/cm<sup>3</sup> and  $5 \times 10^{16}$  atoms/cm<sup>3</sup> and a junction depth of between about 0.3 microns and 1.0 microns.

4. (Original) The device according to Claim 1 wherein said n+ region comprises a dopant concentration of between about  $1 \times 10^{20}$  atoms/cm<sup>3</sup> and  $1 \times 10^{22}$  atoms/cm<sup>3</sup> and a junction depth of between about 0.1 microns and 0.3 microns.

5. (Original) The device according to Claim 1 wherein said distance between said n+ region and said n-well region is between about 0.2 microns and 1.0 microns.

6. (Original) The device according to Claim 1 wherein said first voltage supply is between about 1.0 Volts and 5.0 Volts referenced to said p-well region during said normal operation.

7. (Original) The device according to Claim 1 wherein said second voltage supply is between about 1.0 Volts and 5.0 Volts referenced to said p-well region during said normal operation.

8. (Currently Amended) An electrostatic discharge protection device consisting of:

a p-well region in a semiconductor substrate;

a ground pad connected to a first p+ region in said

5 p-well region;

an n+ region in said p-well region wherein said n+ region is connected to a first voltage supply;

an n-well region in said p-well region wherein said n+ region is spaced from said n-well region a distance such  
10 that a depletion region extends therebetween during normal operation and wherein said distance between said n+ region and said n-well region is between about 0.2 microns and 1.0 microns; and

a second p+ region in said n-well region wherein said  
15 second p+ region is connected to a second voltage supply of  
greater value than said first voltage supply during said  
normal operation wherein current is conducted through said  
n+ region to said second p+ region during an electrostatic  
discharge event. The device according to Claim 8 wherein  
20 said p-well region comprises a dopant concentration of  
between about  $1 \times 10^{15}$  atoms/cm<sup>3</sup> and  $1 \times 10^{16}$  atoms/cm<sup>3</sup>.

10. (Original) The device according to Claim 8 wherein said  
n-well region comprises a dopant concentration of between  
about  $5 \times 10^{15}$  atoms/cm<sup>3</sup> and  $5 \times 10^{16}$  atoms/cm<sup>3</sup> and a junction  
depth of between about 0.3 microns and 1.0 microns.

11. (Original) The device according to Claim 8 wherein said  
n+ region comprises a dopant concentration of between about  
 $1 \times 10^{20}$  atoms/cm<sup>3</sup> and  $1 \times 10^{22}$  atoms/cm<sup>3</sup> and a junction depth of  
between about 0.1 microns and 0.3 microns.

12. (Original) The device according to Claim 8 wherein said  
first voltage supply is between about 1.0 Volts and 5.0  
Volts referenced to said p-well region during said normal  
operation.

13. (Original) The device according to Claim 8 wherein said second voltage supply is between about 1.0 Volts and 5.0 Volts referenced to said p-well region during said normal operation.

14. (Currently Amended) An electrostatic discharge protection circuit on an integrated circuit device, said protection circuit consisting of:

a ground pad connected ~~to an external ground~~  
5 ~~reference and~~ to a first p+ region in a p-well in a substrate;

a first voltage supply pad connected to an external first voltage supply and to an n+ region in said p-well; and

10 a second voltage supply pad connected to an external second voltage supply of greater value than said external first voltage supply during normal operation and to a second p+ region in an n-well region in said p-well region wherein said n+ region is spaced from said n-well region a  
15 distance such that a depletion region extends therebetween during said normal operation, and wherein current is conducted through said external second voltage supply pad

to said external first voltage supply pad during an electrostatic discharge event.

15. (Original) The device according to Claim 14 wherein said p-well region comprises a dopant concentration of between about  $1 \times 10^{15}$  atoms/cm<sup>3</sup> and  $1 \times 10^{16}$  atoms/cm<sup>3</sup>.

16. (Original) The device according to Claim 14 wherein said n-well region comprises a dopant concentration of between about  $5 \times 10^{15}$  atoms/cm<sup>3</sup> and  $5 \times 10^{16}$  atoms/cm<sup>3</sup> and a junction depth of between about 0.3 microns and 1.0  
5 microns.

17. (Original) The device according to Claim 14 wherein said n+ region comprises a dopant concentration of between about  $1 \times 10^{20}$  atoms/cm<sup>3</sup> and  $1 \times 10^{22}$  atoms/cm<sup>3</sup> and a junction depth of between about 0.1 microns and 0.3 microns.

18. (Original) The device according to Claim 14 wherein said distance between said n+ region and said n-well region is between about 0.3 microns and 1.0 microns.

19. (Original) The device according to Claim 14 wherein said external first voltage supply is between about 1.0 Volts and 5.0 Volts referenced to said p-well region during said normal operation.

20. (Original) The device according to Claim 14 wherein said external second voltage supply is between about 1.0 Volts and 5.0 Volts referenced to said p-well region during said normal operation.